

WHAT IS CLAIMED IS:

1. A method of reading an image, which comprises the steps of:

exposing a color photosensitive material having at least three photosensitive layers containing blue-, green- and red-photosensitive silver halide emulsions, respectively, on a transparent support;

processing the exposed color photosensitive material at a processing temperature of 50 °C or more to form a silver image; and

reading the silver image.

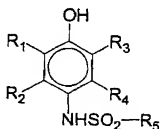
2. The method of reading an image according to claim 1, wherein 60 % or more of the density of the image is based on the developed silver.

3. The method of reading an image according to claim 1, wherein said color photosensitive material includes a developing agent.

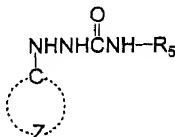
4. The method of reading an image according to claim 3, wherein the exposed color photosensitive material incorporated a developing agent therein and a processing material containing a processing layer containing at least one of a base and a base precursor on a support are attached

and developed by heating in the presence of water therebetween in an amount of 1/10- to 1-fold relative to the amount of water required for the maximum swelling of the whole coated layers including the photosensitive material and the processing material.

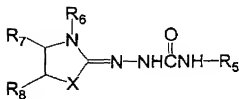
5. The method of reading an image according to claim 1, wherein the silver image is formed by use of a developing agent represented by the general formula (1), (2), (3) or (4):



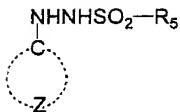
General formula(1)



General formula(2)



General formula(3)



General formula(4)

wherein R_1 to R_4 represent a hydrogen atom, halogen atom, alkyl group, aryl group, alkyl carbon amide group, aryl carbon amide group, alkyl sulfone amide group, aryl sulfone amide group, alkoxy group, aryloxy group, alkylthio group, arylthio group, alkyl carbamoyl group, aryl carbamoyl group, carbamoyl group, alkyl sulfamoyl group, aryl sulfamoyl group, sulfamoyl group, cyano group, alkyl sulfonyl group, aryl sulfonyl group, alkoxy carbonyl group, aryloxy carbonyl group, alkyl carbonyl group, aryl carbonyl group or acyloxy group, R_5 represents an alkyl group, aryl group or heterocyclic group, Z represents an atomic group forming a (hetero) aromatic ring, and when Z is a benzene ring, the total of Hammett's constants (σ) of its substituent groups is 1 or more, R_6 represents an alkyl group, X represents an oxygen atom, sulfur atom, selenium atom, or an alkyl- or aryl-substituted tertiary nitrogen atom, R_7 and R_8 represent a hydrogen atom or substituent group, whereupon R_7 and R_8 may be bound to each other to form a double bond or a ring, provided that in each of the general formula (1) to (4), at least one ballast group containing 8 or more carbon atoms to confer oil solubility on the molecule.

6. A method of forming a color image, which comprises the step of forming a color image on the basis of the silver image information read by a method of reading an image comprising the steps of:

exposing a color photosensitive material having at least three photosensitive layers containing blue-, green- and red-photosensitive silver halide emulsions, respectively, on a transparent support;

processing the exposed color photosensitive material at a processing temperature of 50 °C or more to form a silver image; and

reading the silver image.

7. A method of forming a color image, which comprises the steps of:

subjecting an exposed silver halide color photosensitive material to development processing;

reading image information photoelectrically from the obtained image; and

converting the read image information into electrical digital image information, wherein,

(1) the silver halide color photosensitive material contains a decolorizable anti-halation dye, (2) the reading of image information comprises photoelectric reading of the

first image information by using light reflected from and photoelectric reading of the second image information by light transmitted through the processed silver halide photosensitive material, and (3) the read first and second image information is converted into electrical blue, green and red digital image information.

8. The method of forming a color image according to claim 7, wherein said electrical blue, green and red digital image information obtained by conversion of the first and second image information is subjected to image processing and the image-processed digital image information is outputted to a printer.

9. The method of forming a color image according to claim 7, wherein the decolorizable anti-halation dye is an anti-halation dye represented by the general formula (I):



wherein D represents a compound having a chromophere, and X represents a dissociable proton bound to D directly or via a divalent linking group, or a group having said dissociable proton, and y is an integer of 1 to 7.

10. A method of forming a color image, which comprises the steps of:

subjecting an exposed silver halide color photosensitive material to development processing;
reading image information photoelectrically from the obtained image; and
converting the read image information into electrical digital image information, wherein,
(1) the silver halide color photosensitive material has at least one interlayer containing an infrared absorbing dye, (2) the reading of image information comprises photoelectric reading of the first image information by light reflected from and photoelectric reading of the second image information by light transmitted through the processed photosensitive material, and (3) the read first and second image information is converted into electrical blue, green and red digital image information.

11. The method of forming a color image according to claim 10, wherein the silver halide color photosensitive material has an anti-halation layer containing a decolorizable anti-halation dye.

12. The method of forming a color image according to claim 10, wherein the electrical blue, green and red digital image information obtained by conversion of the first and second image information is subjected to image processing and

the image-processed digital image information is output to a printer.

13. The method of forming a color image according to claim 10, wherein said first image information includes two kinds of image information comprising the image information recorded on a lowermost photosensitive layer read from the back side of the photosensitive material and the image information recorded on an uppermost photosensitive layer read from the front side of the photosensitive material.

14. The method of forming a color image according to claim 10, wherein the light for reading the first image information is an infrared radiation.

15. A silver halide color photosensitive material, for use in photoelectric reading of image information by light reflected from and photoelectric reading of image information by light transmitted through the silver halide color photosensitive material after being development processed, and converting the two kinds of read information into digital image information, which has at least one interlayer containing an infrared absorbing dye having a transmission density of at least 0.05.

16. A silver halide color photosensitive material, which comprises on a support at least one silver halide emulsion layer, at least one interlayer containing an infrared absorbing dye having at a transmission density of at least 0.5, and an anti-halation layer containing a decolorizable anti-halation dye.

17. A method of forming a color image, which comprises the steps of:

subjecting an exposed silver halide color photosensitive material to development processing;

reading image information photoelectrically from the obtained image; and

converting the read image information into electrical digital image information, wherein,

(1) the reading of image information comprises photoelectric reading of the first image information by using light reflected from and photoelectric reading of the second image information by using light transmitted through the silver halide color photosensitive material after being processed, (2) the silver halide color photosensitive material is subjected to clarification process between the operations of reading the first and second image information, and (3) the read first and second image information is converted into electrical blue, green and red digital image

information.

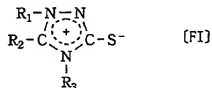
18. The method of forming a color image according to claim 17, wherein said electrical blue, green and red digital image information obtained by conversion of the first and second image information is subjected to image processing and the image-processed digital image information is output to a printer.

19. The method of forming a color image according to claim 17, wherein the first image information includes two kinds of image information comprising the image information recorded on a lowermost photosensitive layer read by a reflected light from the back side of the photosensitive material and the image information recorded on an uppermost photosensitive layer read by a reflected light from the front side of the photosensitive material.

20. The method of forming a color image according to claim 17, wherein the development process to which the silver halide color photosensitive material is subjected is black and white development, and the second image information is an image information obtained by reading light transmitted through the processed photosensitive material on which superposed images are formed on three layers comprising a

lowermost photosensitive layer, an uppermost photosensitive layer and an intermediate photosensitive layer therebetween.

21. The method of forming a color image according to claim 17, wherein the clarification process is conducted by use of a processing solution containing a fixing agent selected from the group consisting of a meso-ion compound represented by the general formula [FI], a thiourea derivative represented by the general formula [FII], and a mercaptotetrazole represented by the general formula [FIII]:

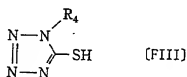


wherein R_1 , R_2 and R_3 independently represent a hydrogen atom, alkyl group, cycloalkyl group, alkenyl group, alkynyl group, aralkyl group, aryl group, heterocyclic group, amino group, acylamino group, sulfonamide group, ureido group, sulfamoyl amino group, acyl group, thioacyl group, carbamoyl group and thiocarbamoyl group, provided that R_1 and R_2 are not simultaneously hydrogen atoms,



wherein X and Y independently represent an alkyl group,

alkenyl group, aralkyl group, aryl group, heterocyclic group, $-N(R_{11})R_{12}$, $-N(R_{13})N(R_{14})R_{15}$, $-OR_{16}$ and $-SR_{17}$, and X and Y may form a ring provided that X and/or Y is substituted with at least one carboxylic acid or salt thereof, sulfonic acid or salt thereof, phosphonic acid or salt thereof, or amino group, ammonium group or hydroxyl group, R_{11} , R_{12} , R_{13} , R_{14} and R_{15} independently represent a hydrogen atom, alkyl group, alkenyl group, aralkyl group, aryl group and heterocyclic group, and R_{16} and R_{17} independently represent a hydrogen atom, cation, alkyl group, alkenyl group, aralkyl group, aryl group and heterocyclic group,



wherein R_4 represents a hydroxy alkyl group.

22. A device for forming a color image, which comprises a development process part for subjecting an exposed silver halide color photosensitive material to development process, a first image information reading part for photoelectric reading of the first image information by using light reflected from the obtained image, a second image information reading part for photoelectric reading of the second image information by using light transmitted through the image, a

clarification process part for subjecting the silver halide color photosensitive material to clarification process between the first and second image information reading part, and an arithmetic processing part for converting the read first and second image information into electrical blue, green and red digital image information.

23. A method of forming a color image, which comprises the steps of:

subjecting an exposed silver halide color photosensitive material to development process;

reading image information photoelectrically from the obtained image; and

converting the read image information into electrical digital image information, wherein,

(1) the reading of image information includes photoelectric reading of the first image information by light reflected from and photoelectric reading of the second image information by light transmitted through the processed photosensitive material, (2) the silver halide color photosensitive material is dried between the reading operations of the first and second image information, and (3) the read first and second image information is converted into electrical blue, green and red digital image information.

24. The method of forming a color image according to claim 23, wherein the silver halide color photosensitive material has a support mainly made from polyester.

25. The method of forming a color image according to claim 23, wherein said electrical blue, green and red digital image information obtained by conversion of the first and second image information is subjected to image processing and the image-processed digital image information is output to a printer.

26. The method of forming a color image according to claim 23, wherein the first image information includes two kinds of image information comprising the image information recorded on a lowermost photosensitive layer read from the back side of the photosensitive material and the image information recorded on an uppermost photosensitive layer read from the front side of the photosensitive material.

27. The method of forming a color image according to claim 23, wherein the development process to which the silver halide color photosensitive material is subjected is black and white development, and the second image information is image information obtained by reading light transmitted through the processed photosensitive material on which

superposed images are formed on three layers comprising a lowermost photosensitive layer, an uppermost photosensitive layer and an intermediate photosensitive layer therebetween.

28. A device for forming a color image, which comprises a development process part for subjecting an exposed silver halide color photosensitive material to development process, a first image information reading part for photoelectric reading of the first image information by light reflected from the obtained image, a second image information reading part for photoelectric reading of the second image information by light transmitted through the image, a heat drying part for drying the silver halide color photosensitive material between the first and second image reading parts, and an arithmetic processing part for converting the read first and second image information into electrical blue, green and red digital image information.

29. A method of forming a color image, which comprises the steps of:

subjecting an exposed silver halide color photosensitive material to development process;

reading image information photoelectrically from the obtained image; and

converting the read image information into electrical

digital image information, wherein,

(1) the development processing is development process by applying a developing solution to the silver halide color photosensitive material and heating the photosensitive material, (2) the reading of image information includes photoelectric reading of the first image information by using light reflected from and photoelectric reading of the second image information by using light transmitted through the processed photosensitive material, and (3) the read first and second image information is converted into electrical blue, green and red digital image information.

30. The method of forming a color image according to claim 29, wherein the silver halide color photosensitive material has a support mainly made from polyester.

31. The method of forming a color image according to claim 29, wherein said electrical blue, green and red digital image information obtained by conversion of the first and second image information is subjected to image processing and the image-processed digital image information is output to a printer.

32. The method of forming a color image according to claim 29, wherein the first image information includes two

kinds of image information comprising the image information recorded on a lowermost photosensitive layer read by reflected light from the back side of photosensitive material and the image information recorded on an uppermost photosensitive layer read by reflected light from the front side of the photosensitive material.

33. The method of forming a color image according to claim 29, wherein the development process to which the photosensitive material is subjected is black and white development, and the second image information is image information obtained by reading light transmitted through the processed photosensitive material on which superposed images are formed on three layers comprising a lowermost photosensitive layer, an uppermost photosensitive layer and an intermediate photosensitive layer therebetween.

34. A device for forming a color image, which comprises a conveying part for conveying an exposed silver halide color photosensitive material, a development process part arranged above the conveying part, a first image information reading part for photoelectric reading of the first image information by using light reflected from the image on the developed silver halide color photosensitive material, a second image information reading part for photoelectric reading of the

second image information by using light transmitted through the image, and said development part includes a supplying part for supplying a developing solution to the silver halide color photosensitive material and a heating part for heating the silver halide color photosensitive material containing the supplied developing solution.

35. A method of forming a color image, which comprises the steps of:

subjecting an exposed silver halide color photosensitive material to development process;

reading image information photoelectrically from the obtained image; and

converting the read image information into electrical digital image information, wherein,

(1) the developing solution used in development process is composed of a developing agent-containing solution having a pH value of 7 or less and an alkali agent-containing solution, and (2) the development process is development process by supplying the developing agent-containing solution and the alkali agent-containing solution to the silver halide color photosensitive material and heating the silver halide color photosensitive material to which the developing solution was supplied.

36. The method of forming a color image according to claim 35, wherein the silver halide color photosensitive material has a support mainly made from polyester.

37. The method of forming a color image according to claim 35, wherein an exposed silver halide color photosensitive material is subjected to development process and then to clarification process, and successively the image information is photoelectrically read from the obtained image.

38. The method of forming a color image according to claim 35, wherein the digital image information obtained by converting the photoelectrically read image is subjected to image processing and the image-processed digital image information is output to a printer.

39. The method of forming a color image according to claim 35, wherein the developing agent contained in the developing agent-containing solution is a color developing agent.

40. A photosensitive material processing device for processing a photosensitive material in which an exposed color photosensitive material is subjected to development process

by supplying a developing solution thereto and heating thereof to form an image, wherein a heating device for the heating is provided with a far infrared-light-emitting heater.

41. The photosensitive material processing device for processing a photosensitive material according to claim 40, wherein the heating device is controlled such that the surface temperature of the color photosensitive material is 50 °C or more to 90 °C or less.